Small Business Innovation Research/Small Business Tech Transfer

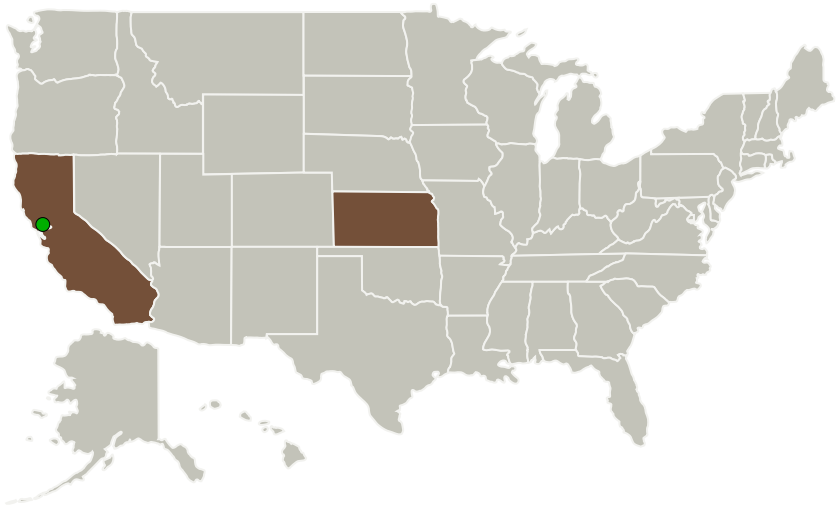
Miniature Airborne Methane Sensor, Phase I

Completed Technology Project (2014 - 2014)

Project Introduction

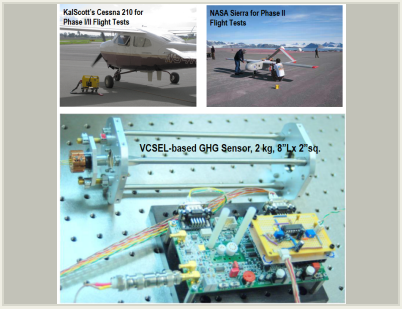
KalScott Engineering, and the subcontractor, Princeton University propose the development and demonstration of compact and robust methane sensor for small Unmanned Aerial Systems (s-UAS) by synthesizing state-of-the-art, laser-based detection methods with the rapidly increasing s-UAS market. The overall goal of this project is to develop and demonstrate (via flight test) laser-based flight-weight methane sensors. In Phase I, the sensor will be built and lab-tested, followed by initial flight tests on KalScott's Cessna 210. In Phase II, a refined version of the sensor will be built, and flight tested, first on the Cessna, and then on a small UAS.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
KALSCOTT Engineering, Inc.	Lead Organization	Industry	Lawrence, Kansas
Ames Research Center(ARC)	Supporting Organization	NASA Center	Moffett Field, California

Primary U.S. Work Locations	
California	Kansas



Miniature Airborne Methane Sensor Project Image

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Project Transitions

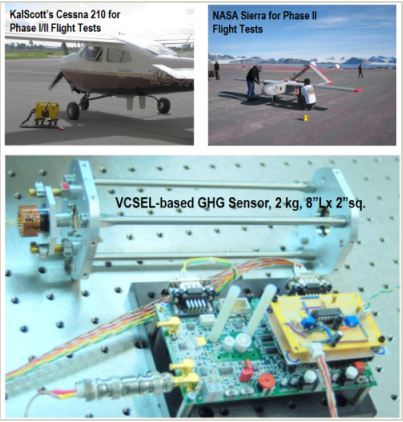
June 2014: Project Start

December 2014: Closed out

Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/137603)*

Images



Project Image
Miniature Airborne Methane Sensor Project Image
(https://techport.nasa.gov/image/127851)

Organizational Responsibility

Responsible Mission Directorate:
Space Technology Mission Directorate (STMD)

Lead Organization:
KALSCOTT Engineering, Inc.

Responsible Program:
Small Business Innovation Research/Small Business Tech Transfer

Project Management

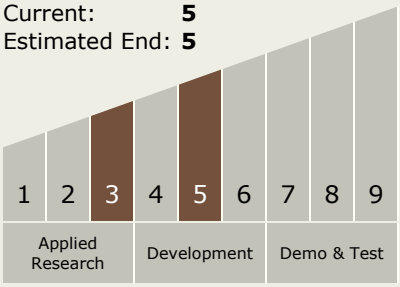
Program Director:
Jason L Kessler

Program Manager:
Carlos Torrez

Principal Investigator:
Suman Saripalli

Technology Maturity (TRL)

Start: **3**
Current: **5**
Estimated End: **5**



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Technology Areas

Primary:

- TX08 Sensors and Instruments
  - TX08.1 Remote Sensing Instruments/Sensors
    - TX08.1.5 Lasers

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System